

**Tennessee Science Standard Aligned to GLOBE  
(Chart for Individual Standards by GLOBE Investigation Areas  
located at end of document.)**

**Kindergarten**

- ✓ GLE 0007.Inq.1 Observe the world of familiar objects using the senses and tools.
- ✓ GLE 0007.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data
- ✓ GLE 0007.Inq.3 Explain the data from an investigation.
- ✓ GLE 0007.2.2 Know that people interact with their environment through their senses.
- ✓ GLE 0007.4.1 Observe how plants and animals change as they grow.
- ✓ GLE 0007.5.1 Compare the basic features of plants and animals.
- ✓ GLE 0007.6.1 Know the different objects that are visible in the day and night sky.
- ✓ GLE 0007.7.1 Identify non-living materials found on the surface of the earth.
- ✓ GLE 0007.8.2 Collect daily weather data at different times of the year.

**Grade One**

- ✓ GLE 0107.Inq.1 Observe the world of familiar objects using the senses and tools.
- ✓ GLE 0107.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data
- ✓ GLE 0107.Inq.3 Explain the data from an investigation.
- ✓ GLE 0107.1.2 Use tools to examine major body parts and plant structures.
- ✓ GLE 0107.3.1 Recognize that plants and animals are living things that grow and change over time.
- ✓ GLE 0107.4.1 Observe and illustrate the life cycle of animals.
- ✓ GLE 0107.6.1 Compare and describe features of the day and night sky.
- ✓ GLE 0107.7.1 Realize that water, rocks, soil, living organisms, and man-made objects make up the Earth's surface.
- ✓ GLE 0104.7.2 Classify earth materials according to their physical properties.
- ✓ GLE 0104.8.1 Gather and interpret daily weather data.

**Grade Two**

- ✓ GLE 0207.Inq.1 Observe the world of familiar objects using the senses and tools.
- ✓ GLE 0207.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data.
- ✓ GLE 0207.Inq.3 Explain the data from an investigation.
- ✓ GLE 0207.2.1 Investigate the habitats of different kinds of local plants and animals.
- ✓ GLE 0207.4.1 Compare the life cycles of various organisms.
- ✓ GLE 0207.7.1 Compare and record the components of a variety of soil types.
- ✓ GLE 0207.8.1 Associate temperature patterns with seasonal changes.

- ✓ GLE 0207.9.1 Use tools to observe the physical properties of objects.

### **Grade Three**

- ✓ GLE 0307.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
- ✓ GLE 0307.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.
- ✓ GLE 0307.Inq.3 Organize data into appropriate tables, graphs, drawings or diagrams.
- ✓ GLE 0307.Inq.4 Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.
- ✓ GLE 0307.Inq.5 Recognize that people may interpret the same results in different ways.
- ✓ GLE 0307.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems.
- ✓ GLE 0307.1.1 Use magnifiers to make observations of specific plant and animal body parts and describe their functions.
- ✓ GLE 0307.4.1 Identify the different life stages through which plant and animals pass.
- ✓ GLE 0307.8.1 Recognize that there are a variety of atmospheric conditions that can be measured.
- ✓ GLE 0307.8.2 Use tools such as the barometer, thermometer, anemometer, and rain gauge to measure atmospheric conditions.
- ✓ GLE 0307.8.3 Identify cloud types associated with particular atmospheric conditions.
- ✓ GLE 0307.8.4 Predict the weather based on cloud observations.

### **Grade 4**

- ✓ GLE 0407.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
- ✓ GLE 0407.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.
- ✓ GLE 0407.Inq.3 Organize data into appropriate tables, graphs, drawings, or diagrams.
- ✓ GLE 0407.Inq.4 Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.
- ✓ GLE 0407.Inq.5 Recognize that people may interpret the same results in different ways.
- ✓ GLE 0407.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems.
- ✓ GLE 0407.8.1 Recognize the major components of the water cycle.
- ✓ GLE 0407.8.2 Differentiate between weather and climate.

- ✓ GLE 0407.10.2 Investigate how light travels and is influenced by different types of materials and surfaces.

### **Grade Five**

- ✓ GLE 0507.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
- ✓ GLE 0507.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.
- ✓ GLE 0507.Inq.3 Organize data into appropriate tables, graphs, drawings, or diagrams.
- ✓ GLE 0507.Inq.4 Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.
- ✓ GLE 0507.Inq.5 Recognize that people may interpret the same results in different ways.
- ✓ GLE 0507.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems.
- ✓ GLE 0507.5.1 Investigate physical characteristics associated with different groups of animals.

### **Grade Six**

- ✓ GLE 0607.Inq.1 Design and conduct open-ended scientific investigations.
- ✓ GLE 0607.Inq.2 Use appropriate tools and techniques to gather, organize, analyze and interpret data.
- ✓ GLE 0607.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.
- ✓ GLE 0607.Inq.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
- ✓ GLE 0607.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.
- ✓ GLE 0607.8.1 Design and conduct an investigation to determine how the sun drives atmospheric convection.
- ✓ GLE 0607.8.4 Analyze meteorological data to predict weather conditions.

### **Grade Seven**

- ✓ GLE 0707.Inq.1 Design and conduct open-ended scientific investigations.
- ✓ GLE 0707.Inq.2 Use appropriate tools and techniques to gather, organize, analyze and interpret data.
- ✓ GLE 0707.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.
- ✓ GLE 0707.Inq.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
- ✓ GLE 0707.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.

## **Grade Eight**

- ✓ GLE 0807.Inq.1 Design and conduct open-ended scientific investigations.
- ✓ GLE 0807.Inq.2 Use appropriate tools and techniques to gather, organize, analyze and interpret data.
- ✓ GLE 0807.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.
- ✓ GLE 0807.Inq.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration
- ✓ GLE 0807.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.
- ✓ GLE 0807.5.1 Identify various criteria used to classify organisms into groups.
- ✓ GLE 0807.9.5 Apply the chemical properties of the atmosphere to illustrate a mixture of gases.

## **Biology**

- ✓ CLE 3210.Inq.2 Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts, and compare opposing theories.
- ✓ CLE 3210.Inq.3 Use appropriate tools and technology to collect precise and accurate data.
- ✓ CLE 3210.Inq.4 Apply qualitative and quantitative measures to analyze data and draw conclusions that are free of bias.
- ✓ CLE 3210.Inq.6 Communicate and defend scientific findings.
- ✓ CLE 3210.2.4 Describe the sequence of events associated with biological succession.

## **Chemistry**

- ✓ CLE 3221.Inq.2 Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts, and compare opposing theories.
- ✓ CLE 3221.Inq.3 Use appropriate tools and technology to collect precise and accurate data.
- ✓ CLE 3221.Inq.4 Apply qualitative and quantitative measures to analyze data and draw conclusions that are free of bias.
- ✓ CLE 3221.Inq.6 Communicate and defend scientific findings.

## **Earth Science**

- ✓ CLE 3204.Inq.2 Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts and compare opposing theories.
- ✓ CLE 3204.Inq.3 Use appropriate tools and technology to collect precise and accurate data.
- ✓ CLE 3204.Inq.4 Apply qualitative and quantitative measures to analyze data and draw conclusions that are free of bias.
- ✓ CLE 3204.Inq.6 Communicate and defend scientific findings.
- ✓ CLE 3204.3.3 Analyze the hydrologic cycle.
- ✓ CLE 3204.3.4 Interpret data related to the atmospheric cycle.
- ✓ CLE 3204.3.6 Differentiate among the geochemical cycles.
- ✓ CLE 3204.3.8 Relate earth system cycles to past and current patterns of global change.

## **Environmental Science**

- ✓ CLE 3260.Inq.2 Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts and compare opposing theories.
- ✓ CLE 3260.Inq.3 Use appropriate tools and technology to collect precise and accurate data.
- ✓ CLE 3260.Inq.4 Apply qualitative and quantitative measures to analyze data and draw conclusions that are free of bias.
- ✓ CLE 3260.Inq.6 Communicate and defend scientific findings.
- ✓ CLE 3260.1.4 Relate the atmosphere, hydrosphere, and lithosphere to the biosphere.
- ✓ CLE 3260.2.4 Distinguish between primary and secondary biological succession using common plants and animals.
- ✓ CLE 3260.6.1 Investigate the causes, environmental effects, and methods for controlling/preventing land, air and water pollution.

## **Physical Science**

- ✓ CLE 3202.Inq.2 Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts and compare opposing theories.
- ✓ CLE 3202.Inq.3 Use appropriate tools and technology to collect precise and accurate data.
- ✓ CLE 3202.Inq.4 Apply qualitative and quantitative measures to analyze data and draw conclusions that are free of bias
- ✓ CLE 3202.Inq.6 Communicate and defend scientific findings
- ✓ CLE 3202.1.10 Distinguish among acids, bases, and neutral substances.

GLE #	Atmosphere	Hydrology	Soil	Land Cover/ Biology	Earth as a System
<b>Kindergarten</b>					
0007.Inq.1	X	X	X	X	X
0007.Inq.2	X	X	X	X	X
0007.Inq.3	X	X	X	X	X
0007.2.2	X	X	X	X	X
0007.4.1				X	X
0007.5.1				X	X
0007.6.1	X				
0007.7.1			X		
0007.8.2	X				
<b>Grade 1</b>					
0107.Inq.1	X	X	X	X	X
0107.Inq.2	X	X	X	X	X
0107.Inq.3	X	X	X	X	X
0107.1.2					X
0107.3.1				X	X
0107.3.1				X	X
0107.4.1					X
0107.6.1	X				
0107.7.1			X	X	
0107.7.2			X	X	
0107.8.1	X				
<b>Grade 2</b>					
0207.Inq.1	X	X	X	X	X
0207.Inq.2	X	X	X	X	X
0207.Inq.3	X	X	X	X	X
0207.2.1				X	X
0207.4.1				X	X
0207.7.1			X		
0207.8.1	X				
0207.9.1	X		X		X
<b>Grade 3</b>					
0307.Inq.1	X	X	X	X	X
0307.Inq.2	X	X	X	X	X
0307.Inq.3	X	X	X	X	X
0307.Inq.4	X	X	X	X	X
0307.Inq.5	X				
0307.T/E.1	X				

0307.1.1				X	X
0307.4.1				X	X
0307.8.1	X				
0307.8.2	X				
0307.8.3	X				
0307.8.4	X				
<b>Grade 4</b>					
0407.Inq.1	X	X	X	X	X
0407.Inq.2	X	X	X	X	X
0407.Inq.3	X	X	X	X	X
0407.Inq.4	X	X	X	X	X
0407.Inq.5	X				
0407.T/E.1	X				
0407.8.1	X				
0407.8.2	X				
0407.10.2	X				
<b>Grade 5</b>					
0507.Inq.1	X	X	X	X	X
0507.Inq.2	X	X	X	X	X
0507.Inq.3	X	X	X	X	X
0507.Inq.4	X	X	X	X	X
0507.Inq.5	X				
0507.T/E.1	X				
0507.5.1					X
<b>Grade 6</b>					
0607.Inq.1	X	X	X	X	X
0607.Inq.2	X	X	X	X	X
0607.Inq.3	X	X	X	X	X
0607.Inq.4	X				
0607.Inq.5	X	X	X	X	X
0607.8.1	X				
0607.8.4	X				
<b>Grade 7</b>					
0707.Inq.1	X	X	X	X	X
0707.Inq.2	X	X	X	X	X
0707.Inq.3	X	X	X	X	X
0707.Inq.4	X				
0707.Inq.5	X	X	X	X	X
<b>Grade 8</b>					
0807.Inq.1	X	X	X	X	X
0807.Inq.2	X	X	X	X	X
0807.Inq.3	X	X	X	X	X
0807.Inq.4	X				
0807.Inq.5	X	X	X	X	X

0807.5.1					X
0807.9.5	X				
<b>CLE #</b>	<b>Atmosphere</b>	<b>Hydrology</b>	<b>Soil</b>	<b>Land Cover/ Biology</b>	<b>Earth as a System</b>
<b>Biology</b>					
3210.Inq.2	X	X	X	X	X
3210.Inq.3	X				
3210.Inq. 4	X	X	X	X	X
3210.Inq.6	X	X	X	X	X
3210.2.4				X	
<b>Chemistry</b>					
3221.Inq.2	X	X	X	X	X
3221.Inq.3	X	X	X	X	X
3221.Inq.4	X	X	X	X	X
3221.Inq.6	X	X	X	X	X
<b>Earth Science</b>					
3204.Inq.2	X	X	X	X	X
3204.Inq.3	X	X	X	X	X
3204.Inq.4	X	X	X	X	X
3204.Inq.6	X	X	X	X	X
3204.3.3		X			
3204.3.4	X				
3204.3.6					X
3204.3.8					X
<b>Environmental Science</b>					
3260.Inq.2	X	X	X	X	X
3260.Inq.3	X	X	X	X	X
3260.Inq.4	X	X	X	X	X
3260.Inq.6	X	X	X	X	X
3260.1.4					X
3260.2.4				X	
3260.6.1		X		X	
<b>Physical Science</b>					
3202.Inq.2	X	X	X	X	X
3202.Inq.3	X	X	X	X	X
3202.Inq.4	X	X	X	X	X
3202.Inq.6	X	X	X	X	X
3202.1.10		X			

(Updated January 2013)